### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Motoharu SEIKI et al.

Serial No. NEW : Attn: Application Branch

Filed December 12, 2000 : Attorney Docket No. 2000-1617

NOVEL PROTEIN AND MONOCLONAL ANTIBODY SPECIFIC THERETO (Rule 1.53(b) Divisional Application of Serial No. 09/000,041, Filed February 20, 1998)



### **PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents Washington, DC 20231

Sir:

Prior to calculating the filing fee, kindly amend the above-referenced U.S. patent application as follows:

## In the Specification:

Page 1, between lines 1 and 2, insert the following:

--This application is a Divisional application of Serial number 09/000,041 filed February 20, 1998, now pending, which is a 371 of PCT/JP96/01956 filed July 12, 1996, also pending.

BACKGROUND OF THE INVENTION--;

line 2, change "TECHNICAL FIELD" to --1. FIELD OF THE INVENTION--; line 25, change "BACKGROUND ART" to --DESCRIPTION OF THE RELATED ART--;

line 27, change "for" to --in--.

Page 2, line 1, change "destroy" to --destruction--.

Page 5, line 26, change "DISCLOSURE" to --SUMMARY--.

Page 8, line 31, change "Ala<sup>561</sup>" to --Ala<sup>564</sup>--; change "Phe<sup>584</sup>" to --Phe<sup>587</sup>--.

Page 14, line 1, after "OF" insert "THE";

line 5, after "," (third occurrence) insert --MMP-12,--;

line 2 from the bottom, delete "A:".

Page 15, line 11, delete "B:";

line 23, change "<u>DETAILED DESCRIPTION OF THE INVENTION</u>" to

# -- DESCRIPTION OF THE PREFERRED EMBODIMENTS--.

Page 16, line 27, change "113rd" to --113th--;

line 29, change "1922nd" to --1931st--; change "1924th" to --1933rd--;

line 30, change "1925th" to --1934th--; change "1927th" to --1936th--.

Page 20, line 13, after "GEADILV" insert --(SEQ ID NO: 9)--;

line 14, after "GDAHFDDDE" insert --(SEQ ID NO: 10)--;

line 28, replace "was" with --were--.

Page 21, line 12, change "604" to --607--;

line 14, delete "a";

```
line 18, change "561st" to --564th--; change "584th" to --587th--.
        Page 22, line 9, replace "on" with --in--;
                line 15, replace "the highly" with --high--.
        Page 23, line 15, after "Sf21" insert --)--;
                line 18, replace "contain" with --have--.
        Page 43, line 8, replace "in" with --an--.
        Page 48, line 13, after "GEADIMI" insert -- (SEQ ID NO: 11)--;
                line 19, after "GDAHFDDDE" insert --(SEQ ID NO: 10)--.
        Page 53, line 27, change "2107" to --2116--;
               line 32, change "604" to --607--.
        Page 54, line 20, delete "a";
               line 21 replace "structure" with --structures--;
               line 24, after "PRCGVPD" insert --(SEQ ID NO: 12)--;
               line 32, change "66" to --68--;
               line 33, change "51" to --49--; change "&" to --(52%),--; change "50" to --48--;
delete ", respectively)";
               line 34, change "47" to --49--; change "46" to --42--.
       Page 55, line 7, change "Asp<sup>530</sup>" to --Asp<sup>533</sup>--; change "Val<sup>604</sup>" to --Val<sup>607</sup>--;
               line 9, after "AIAIVIPCILALCLLVLVYTVFQF" insert --(SEO ID NO: 13)--:
               line 17, change "43" to --53--;
               line 19, after "RXKR" insert --(SEQ ID NO: 14)--:
```

line 22, after "RXKR" insert -- (SEQ ID NO: 14)--.

Page 56, line 19, replace "gently" with --gentle--.

Page 67, line 9, replace "each of" with -- of each--.

Page 71, line 17, change "Ala556" to --Ala559--; change "Val604" to --Val607--.

Page 72, line 16, after "separated" insert --from--.

Page 74, line 1, replace "amounts" with --amount--.

Page 75, line 7, replace "gently" with --gentle--;

line 10, replace "slowly" with --slow--.

Page 76, line 22, change "Ala<sup>561</sup>" to -- Ala<sup>564</sup> --; change "Phe<sup>584</sup>" to --Phe<sup>587</sup>--.

Page 79, delete line 15 in its entirety.

Replace the Sequence Listing of record, pages 81-88, with the attached substitute Sequence Listing consisting of pages 81-90.

### In the Abstract:

Line 1, change the heading to read -- Abstract of the Disclosure--.

### In the Claims:

Above claim 1, insert -- What is claimed is:--.

Kindly cancel claims 1-13 and 27-29 without prejudice.

Please amend the claims as follows:

Claim 16, line 1, delete "or 15"

- Claim 17, line 1, change "any of Claims 14 to" to --Claim 14--; line 2, delete "16".
- Claim 18, line 1, change "any of Claims 14 to" to --Claim 14--; line 2, delete "17".
- Claim 19, line 1, change "any of Claims 14 to" to --Claim 14--; line 2, delete "18".
- Claim 20, line 1, change "any of Claims 14 to" to --Claim 14--; line 2, delete "19".
- Claim 21, line 1, change "any of Claims 14 to" to --Claim 14--; line 2, delete "19".
- Claim 22, line 1, change "any of Claims 14 to" to --Claim 14--; line 2, delete "19 and 21".
- Claim 24, line 2, delete "or 22".

Claim 25, line 10, change "any of Claims 14 to 22" to --Claim 14--.

Please add the following new claims.

- --30. An isolated peptide or a salt thereof of a matrix metalloproteinase (MMP) protein or a salt of said matrix metalloproteinase protein, said matrix metalloproteinase protein comprising the following peptide fragments of SEQ ID No: 2: (a) Gly<sup>109</sup> to Arg<sup>119</sup>, (b) Pro<sup>171</sup> to Gly<sup>178</sup>, (c) Thr<sup>229</sup> to Leu<sup>242</sup> and (d) Asp<sup>533</sup> to Val<sup>607</sup> and having a maximum molecular weight of approximately 69kDa and is a pro MMP-2 activating factor.
  - 31. An isolated polynucleotide encoding the peptide according to claim 30.
  - 32. The peptide or salt thereof according to claim 30, which is labeled.
  - 33. The polynucleotide according to claim 31, which is labeled.
  - 34. A probe for hybridization comprising the polynucleotide according to claim 33.
- 35. A process for producing a peptide or salt thereof of a matrix metalloproteinase protein, comprising:

culturing a host cell transformed or transfected with a vector comprising a polynucleotide which encodes the peptide or salt thereof of claim 30, in a nutrient medium, and

obtaining from the nutrient medium the peptide or salt thereof of the matrix metalloproteinase protein.--.

Pleaser renumber pages 89-93 of the original application papers containing the claims and Abstract as pages 91-95.

### **REMARKS**

Favorable consideration is respectfully requested in view of the foregoing amendments and the following remarks.

The specification has been amended to effect changes which were effected in the Parent application.

Claims 1-13 and 27-29 have been cancelled without prejudice, claims 16-22, 24 and 25 have been amended to remove the multiple dependencies and new claims 30-35 have been added. The new claims are presented to protect specific embodiments which were cancelled during the prosecution of the parent invention. Support for the new claims is readily apparent from the teachings of the specification and the original claims.

Applicants believe that the application is now in optimal form for examination. Such action is thus respectfully solicited.

Respectfully submitted,

Motoharu SEIKI et al

By Lee Cheng

Registration No. 40,949 Attorney for Applicants

LC/gtn Washington, D.C. 20006 Telephone (202) 721-8200 December 12, 2000